#7

SEQUENCE LISTING

<110> Prayaga, Sudhirdas K

Shimkets, Richard A

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Padigaru, Muralidhara

Patturajan, Meera

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Li, Li

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<140> 10/083,919

<141> 2002-02-27

<150> 60/157,786

<151> 1999-10-05

<150> 60/164,164

<151> 1999-11-09

<150> 60/174,505

<151> 2000-01-04

<150> 60/183,859

<151> 2000-02-22

<150> 60/190,740

<151> 2000-03-20

<150> 60/191,133

<151> 2000-03-22

<150> 60/206,006

<151> 2000-05-19

<150> 60/215,684

<151> 2000-06-30

<150> 60/219,490

<151> 2000-07-20

<150> 60/227,072

<151> 2000-08-22

<150> 09/679,460

<151> 2000-10-04

<150> 09/679,740

<151> 2000-10-05

<150> 60/271,909

<151> 2001-02-27

<160> 202

<170> PatentIn Ver. 2.1

<210> 1

<211> 318

<212> DNA

<213> Homo sapiens

<220>

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tccaccaccc catgtgccaa gtggagttcg agctntgcgg ccctcaagca gctgaagggt 120

cccgtgagcg atcaggagaa gctgctggtc tacggcttgt acaaacaggc cacccagggc 180

gactgcgaca tccccggccc tccggcctca gacgtgagag ccagggccaa gtgggaggct 240

tggagcgcga acaaaggggc gtccaagatg gacgccatga ggggctacgc ggccaaagtg 300

gaggagctga cgaagaag 318

<210> 2

<211> 107

<212> PRT

<213> Homo sapiens

<220>

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<222> (32)

<223> wherein Xaa is any amino acid

<400> 2

Asp Arg Val Val Thr Ala Thr Pro Thr Leu His Leu Gln Leu Leu Ala
1 5 10 15

Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Xaa
20 25 30

Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu
35 40 45

Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile
50 55 60

Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala
65 70 75 80

Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr
85 90 95

Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu

100 105

<210> 3

<211> 351

<212> DNA

<213> Homo sapiens

<400> 3

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gatgatgaag aactgaaaga actttatggg ctttacaaac aagctgtaat tggaaacatt 180

aatattgagt gttcagaaat gctagaatta aaaggcaagg ccaaatggga agcacagaac 240

ccccaaaaag gattgtcaga ggaagatatg atgcgtgcct ttatttctaa agccgaagag 300

ctgatagaaa aatatggaat ttagaataaa gcatatgata aattttcctt t 351

<210> 4

<211> 88

<212> PRT

<213> Homo sapiens

<400> 4

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 5

<211> 565

<212> DNA

<213> Homo sapiens

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agttccagac cagctgtcca acatggcaaa acccatctcc actaaaaata caaaaattag 120

ccggcatggg tggcatgcag ctgtaatcac agctgctcgg gaggctgagg cggagaatca 180

cttgagctgg gaagaaaaaa aaaaaaaaaa aagatgtgca ggtattaagc actttaagac 240

caagccagca gatgatgaga tgcggttcct ttacggccac tacaaacgag cgactgtagg 300

caacataaag acagaacggc cagggatggt ggacttcaag ggcaaagcca agtgggatcc 360

ctggaattta gtgaaagggg ctgccaggga agatcccatg aaagctaaag cttacgtcaa 420

aaaagtagaa gagttaaaga aaaaattcag aatacgagag actggaattg ttgccagcca 480

tgcctttgtc ctaaactgag acaatgcctt gtttttttcta cactgtggat ggtgggaact 540

gatggaaaga atcagctaac ccatc 565

<210> 6

<211> 138

<212> PRT

<213> Homo sapiens

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Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly
1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Glu Asn
20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Lys Arg Cys Ala Gly Ile
35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr
50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro
65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu
85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val
100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Lys Phe Arg Ile Arg Glu Thr Gly

115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn

130 135

<210> 7

<211> 310

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ggctgcagaa gatgtgagga agctgaaagc aagaccagat gatggagaac tgaaagaact 120

ctatgggctt tacaaacaag caatagttgg agacattaat attgcgtgtc caggaatgct 180

agatttaaaa ggcaaagcca aatgggaagc atggaacctc aaaaaagggt tgtcgacgga 240

agatgcgacg agtgcctata tttctaaagc aaaggagctg atagaaaaat acggaattta 300

gaatacagca 310

<210> 8

<211> 96

<212> PRT

<213> Homo sapiens

<400> 8

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp

1 5 10 15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly
20 25 30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp
35 40 45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys
50 55 60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr
65 70 75 80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile
85 90 95

<210> 9

<211> 280

<212> DNA

<213> Homo sapiens

<400> 9

accaccatgg cactgcaggc tgaattcgac aaggctgcag aagacgtgag gaagctgcca 60

acaagaccag cagataataa agaactgaaa aaactcgatg gactttacaa acaagctata 120

attggagaca ttaatattga gtatctggga atgctggact ttaagggcaa ggccaaatgc 180

gcagcatgga ccctccaaaa aaggttgtca aaggaagatg caacgagtgt ctctatttct 240

aaggcaaaag agccgataga aaaataggac atttagaata 280

<210> 10

<211> 86

<212> PRT

<213> Homo sapiens

<400> 10

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly
35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys
85

<210> 11

<211> 267

<212> DNA

<213> Homo sapiens

<400> 11

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aagggtcccg tgagcgatca ggagaagctg ctggtctacg gcttgtacaa acaggccacc 120

cagggcgact gcgacatccc cggccctccg gcctcagacg tgagagccag ggccaagtgg 180

gaggcttgga gcgcgaacaa aggggcgtcc aagatggacg ccatgagggg ctacgcggcc 240

aaagtggagg agctgacgaa gaaggaa 267

<210> 12

<211> 89

<212> PRT

<213> Homo sapiens

<400> 12

Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala

1 5 10 15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val

20 25 30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

35 40 45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser

50 55 60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

65 70 75 80

Lys Val Glu Glu Leu Thr Lys Lys Glu

85

<210> 13

<211> 481

<212> DNA

<213> Homo sapiens

<400> 13

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ccccttttgtt cgcgctccaa gcctcccact tggccctggc tctcacgtct gaggccggag 120

ggccggggat gtcgcagtcg ccctgggtgg cctgtttgta caagccgtag accagcagct 180

tctcctgatc gctcacggga cccttcagct gcttgagggc cgcaaagctc gaactccact 240

tggcacatgg ggtggtggag gcggtccctg gtgctagaag ctggaggtgg agagttggag 300

tggctgttac tactcgatct caggggggagg agacaggcac gcgatgtttg tgttttgtca 360

agcacagatt gcaagctcgg ggtccagcgt aaaccccacc atgtttgggc tcacacggcg 420

cattttctgg ggaggaccag ccgtcaaaaa gcgtctagga tccggaacgc tgctgtctgg 480

a 481

<210> 14

<211> 273

<212> DNA

<213> Homo sapiens

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acgtctgagg ccggagggcc ggggatgtcg cagtcgccct gggtggcctg tttgtacaag 120

ccgtagacca gcagcttctc ctgatcgctc acgggaccct tcagctgctt gagggccgcg 180

cagctcgaac tccacttggc acatggggtg gtggaggcgg tccctggtgc tagaagctgg 240

aggtggagag ttggagtggc tgttactact cgc 273

<210> 15

<211> 20

<212> PRT

<213> Homo sapiens

<400> 15

Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp

1 5 10 15

Val Arg Ala Arg

20

<210> 16

<211> 20

<212> PRT

<213> Homo sapiens

<400> 16

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu
1 5 10 15

Leu Lys Gly Lys
20

<210> 17

<211> 20

<212> PRT

<213> Homo sapiens

<400> 17

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp
1 5 10 15

Phe Lys Gly Lys
20

<210> 18

<211> 18

<212> PRT

<213> Homo sapiens

<400> 18

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1 5 10 15

Phe Lys

<210> 19

<211> 20

<212> PRT

<213> Homo sapiens

<400> 19

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1 5 10 15

Leu Lys Gly Lys

20

<210> 20

<211> 18

<212> PRT

<213> Homo sapiens

<400> 20

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1 5 10 15

Leu Lys

<210> 21

<211> 20

<212> PRT

<213> Homo sapiens

<400> 21

Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly Met Leu Asp

1 5 10 15

Phe Lys Gly Lys

20

<210> 22

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<212> DNA

<213> Homo sapiens

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cacgagacta ggtttgaggc ggccgtgaag gtgatccaga gtttgccgaa gaatggttca 180

ttccagccaa caaatgaaat gatgcttaaa ttttatagct tctataagca ggcaactgaa 240

ggaccctgta aactttcaag gcctggattt tgggatccta ttggaagata taaatgggat 300

gcttggagtt cactgggtga tatgaccaaa gaggaagcca tgattgcata tgttgaagaa 360

atgaaaaaga ttattgaaac tatgccaatg actgagaaag ttgaagaatt gctgcgtgtc 420

ataggtccat tttatgaaat tgtcgaggac aaaaagagtg gcaggagttc tgatataacc 480

tcagtccgac tggagaaaat ctctaaatgt ttagaagatc ttggtaatgt tctcacttct 540

actccaaacg ccaaaaccgt taatggtaaa gctgaaagca gtgacagtgg agcggagtct 600

gaggaagaag aggcccaaga agaagtgaaa ggagcagaac acagtgataa tgataagaaa 660

atgatgaaga agtcagcaga ccataagaat ttggaagtca ttgtcactaa tggctatgat 720

aaagatggct ttgttcagga tatacagaat gacattcatg ccagttcttc cctgaatggc 780

agaagcactg aagaagtaaa gcccattgat gaaaacttgg ggcaaactgg aaaatctgct 840

gtttgcattc accaaggtat taatgatgat catgttgaag atgttacagg aattcagcat 900

ttgacaagcg attcagacag tgaagtttac tgtgattcta tggaacaatt tggacaagaa 960

gagtctttag acagctttac gtccaacaat ggaccatttc agtattactt gggtggtcat 1020

tccagtcaac ccatggaaaa ttctggattt cgtgaagata ttcaagtacc tcctggaaat 1080

ggcaacattg ggaatatgca ggtggttgca gttgaaggaa aaggtgaagt caagcatgga 1140

ggagaagatg gcaggaataa cagcggagca ccacaccggg agaagcgagg cggagaaact 1200

gacgaattct ctaatgttag aagaggaaga ggtcatagga tgcaacactt gagcgaagga 1260

accaagggcc ggcaggtggg aagtggaggt gatggggagc gctggggctc cgacagaggg 1320

tcccgaggca gcctcaatga gcagatcgcc ctcgtgctga tgagactgca ggaggacatg 1380

cagaatgtcc ttcagagact gcagaaactg gaaacgctga ctgctgcaaa atcatcaaca 1440

tcaacattgc agactgctcc tcagcccacc tcatctcaga gaccatcttg gtggcccttc 1500

gagatgtctc ctggtgtgct aacgtttgcc atcatatggc cttttattgc acagtggttg 1560

gtgtatttat actatcaaag aaggagaagg taa 1593

<210> 23

<211> 530

<212> PRT

<213> Homo sapiens

<400> 23

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Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu
            20                  25                  30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala
        35                  40                  45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr
    50                  55                  60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
65                  70                  75                  80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
                85                  90                  95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
            100                 105                 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met
        115                 120                 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
    130                 135                 140
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Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
145 150 155 160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn
165 170 175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu
195 200 205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys
210 215 220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
225 230 235 240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
245 250 255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
260 265 270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn
275 280 285

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Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
    290                 295                 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
305                 310                 315                 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr
                325                 330                 335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu
            340                 345                 350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val
        355                 360                 365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly
    370                 375                 380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr
385                 390                 395                 400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His
                405                 410                 415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly
            420                 425                 430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln
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435 440 445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
450 455 460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr
465 470 475 480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg
530

<210> 24

<211> 17

<212> PRT

<213> Homo sapiens

<400> 24

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp

1 5 10 15

Pro

<210> 25

<211> 273

<212> DNA

<213> Homo sapiens

<400> 25

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taaatacaga atggcccagg atgttagacc tcaaaggcaa ggcaaagcag gatgcttgga 180

atgagctgaa agacactgcc aaggaagatg ctgtgaaagc tgatatcaac aaagtagaag 240

agcgaaataa aaaatacaga atataagaga ttg 273

<210> 26

<211> 86

<212> PRT

<213> Homo sapiens

<400> 26

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu

1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys

20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile
85

<210> 27

<211> 20

<212> PRT

<213> Homo sapiens

<400> 27

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
1 5 10 15

Leu Lys Gly Lys
20

<210> 28

<211> 315

<212> DNA

<213> Homo sapiens

<400> 28

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gagatgctgt tcatctatgg ccactacaaa caagcaactg tgggcgacat aaatacagaa 180

cggcccggga tgttggactt cacgggcaag gccaagtggg atgcctggaa tgagctgaaa 240

gggacttcca aggaagatgc catgaaagct tacatcaaca aagtagaaga gctaaagaaa 300

aaatacggga tatga 315

<210> 29

<211> 104

<212> PRT

<213> Homo sapiens

<400> 29

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly
1 5 10 15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His
20 25 30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His
35 40 45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met
50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys
65 70 75 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu
85 90 95

Glu Leu Lys Lys Lys Tyr Gly Ile
100

<210> 30

<211> 20

<212> PRT

<213> Homo sapiens

<400> 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
1 5 10 15

Phe Thr Gly Lys
20

<210> 31

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 31

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gatccaggaa acgaagtgaa gctaaaactc tacgcgctat ataagcaggc cactgaagga 120

ccttgtaaca tgcccaaacc aggtgtattt gacttgatca acaaggccaa atgggacgca 180

tggaatgccc ttggcagcct gcccaaggaa gctgccaggc agaactatgt ggatttggtg 240

tccagtttga gtccttcatt ggaatcctct agtcaggtgg agcctggaac agacaggaaa 300

tcaactgggt ttgaaactct ggtggtgacc tccgaagatg gcatcacaaa gatcatgttc 360

aaccggccca aaaagaaaaa tgccataaac actgagatgt atcatgaaat tatgcgtgca 420

cttaaagctg ccagcaagga tgactcaatc atcactgttt taacaggaaa tggtgactat 480

tacagtagtg ggaatgatct gactaacttc actgatattc cccctggtgg agtagaggag 540

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gcaacagaga tgcttatttt tggaaagaag ttaacagcgg gagaggcatg tgctcaagga 840

cttgttactg aagttttccc tgatagcact tttcagaaag aagtctggac caggctgaag 900

gcatttgcaa agcttccccc aaatgccttg agaatttcaa aagaggtaat caggaaaaga 960

gagagagaaa aactacacgc tgttaatgct gaagaatgca atgtccttca gggaagatgg 1020

ctatcagatg aatgcacaaa tgctgtggtg aacttcttat ccagaaaatc aaaactgtga 1080

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<211> 359

<212> PRT

<213> Homo sapiens

<400> 32

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys
1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala
20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly
35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu
50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val
65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly
85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr
145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly
165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe
180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn
195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu
225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys

290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 33
<211> 20
<212> PRT
<213> Homo sapiens

<400> 33
Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly Val Phe Asp
1 5 10 15

Leu Ile Asn Lys
20

<210> 34

<211> 1574

<212> DNA

<213> Homo sapiens

<220>

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<222> (1)..(1574)

<223> wherein any n is an a, c, g or t

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ganaggacgt ccagcgtacg tcngcccgcg cttccccgcc ggcgcagagc aggcctcaca 180

gaatcgcacg ccgctggcac gcacgccgcc ccgcccccac ggcccagcgc cagcgcgccc 240

cgcgtcgcac gcatcccggc ctcactgccc ctcgactcct gttccgttgg aggggcctga 300

ggcgagcctg agcgcgctgt tggccggagg aagccggaga gaccgggtcg actgggcaga 360

gcggcagagg gtcgaggagc ctgctctgca cgcccaggga gtagaagtgg gcagggagca 420

gggtcacgtg agggagcgcg ccgcgactga gcttgggtcc gactggagct caggctcgcg 480

acccagactg gtgggccagg cctccaagcc ggccttacac ccaatccaag gaggacagac 540

cggacacaga gggacggagc gagcaaggag acatggcttc atcattcctg cccgcggggg 600

ccatcaccgg cgacagcggt ggagagctga gctcagggga cgactccggg gaggtggagt 660

tcccccatag ccctgagatc gaggagacca gttgcctggc cgagctgttt gagaaggctg 720

ccgcgcacct gcaaggcctg attcaggtgg ccagcaggga gcagctcttg tacctgtatg 780

ccaggtacaa acaggtcaaa gttggaaatt gtaatactcc taaaccaagc ttctttgatt 840

ttgaaggaaa gcaaaaatgg gaagcttgga aagcacttgg tgattcaagc cccagccaag 900

caatgcagga atatatcgca gtagttaaaa aactagatcc aggttggaat cctcagatac 960

cagagaagaa aggaaaagaa gcaaatacag gttttggtgg gccagttatt agttctctat 1020

atcatgaaga aaccatcagg gaagaagaca aaaatatatt tgattactgc agggaaaaca 1080

acattgacca tataaccaaa gccatcaaat cgaaaaatgt ggatgtgaat gtgaaagatg 1140

aagagggtag ggctctactt cactgggcct gtgatcgagg acataaggaa ctagtcacag 1200

tgttgctgca acatagagct gacattaact gtcaggacaa tgaaggccaa acagctctac 1260

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tttctttggt gctgcagcgg cacacaactg gcaaggctta atcaaaagac tggaaaactg 1440

cagtctgtaa tagcataagg cttccattat gaaagaaaac tacaaaaata atacttcttt 1500

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aaaaaaaaaa aaaa 1574

<210> 35

<211> 282

<212> PRT

<213> Homo sapiens

<400> 35

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Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys
35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60

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Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
 65                  70                  75                  80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
                 85                  90                  95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln
            100                 105                 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln
        115                 120                 125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Gly Pro
    130                 135                 140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys
145                 150                 155                 160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys
                165                 170                 175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly
            180                 185                 190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val
        195                 200                 205
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Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu
210 215 220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile
225 230 235 240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln
245 250 255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu
260 265 270

Val Leu Gln Arg His Thr Thr Gly Lys Ala
275 280

<210> 36

<211> 20

<212> PRT

<213> Homo sapiens

<400> 36

Gln Val Lys Val Gly Asn Cys Asn Thr Pro Lys Pro Ser Phe Phe Asp
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Phe Glu Gly Lys
20

<210> 37

<211> 20

<212> PRT

<213> Homo sapiens

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<221> VARIANT

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<223> wherein Xaa is Val, Ile or Glu

<220>

<221> VARIANT

<222> (6)

<223> wherein Xaa is Asp, Asn or Pro

<220>

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<223> wherein Xaa is Ile, Leu, Met or Thr

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<221> VARIANT

<222> (11)

<223> wherein Xaa is Lys or Arg

<220>

<221> VARIANT

<222> (17)

<223> wherein Xaa is Leu or Phe

<220>

<221> VARIANT

<222> (20)

<223> wherein Xaa is Lys or Arg

<400> 37

Gln Ala Thr Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Pro Gly Met Leu Asp

1 5 10 15

Xaa Lys Gly Xaa

20

<210> 38

<211> 20

<212> PRT

<213> Homo sapiens

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<221> VARIANT

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<223> wherein Xaa is Ser or Pro

<220>

<221> VARIANT

<222> (11)

<223> wherein Xaa is Tyr, Trp, Lys or Arg

<220>

<221> VARIANT

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<223> wherein Xaa is Gly or Arg

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<222> (14)

<223> wherein Xaa is Val or Phe

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<222> (15)

<223> wherein Xaa is Phe or Trp

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<222> (17)

<223> wherein Xaa is Phe or Pro

<220>

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<222> (18)

<223> wherein Xaa is Lys or Ile

<220>

<221> VARIANT

<222> (20)

<223> wherein Xaa is Lys or Arg

<400> 38

Gln Ala Thr Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Xaa Asp
1 5 10 15

Xaa Xaa Gly Xaa
20

<210> 39

<211> 20

<212> PRT

<213> Homo sapiens

<220>

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<223> wherein Xaa is Asp or Pro

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<222> (8)

<223> wherein Xaa is Lys, Arg or Asn

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<222> (9)

<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met

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<221> VARIANT

<222> (10)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (11)

<223> wherein Xaa is Lys or Arg

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<222> (14)

<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met

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<223> wherein Xaa is Trp, Ala, Ile, Thr, Val, Phe, Leu
or Met

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or Met

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<222> (20)

<223> wherein Xaa is Lys or Arg

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1 5 10 15

Xaa Ile Xaa Xaa

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<210> 40

<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is Thr, Val or Lys

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<223> wherein Xaa is Val or Ile

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<223> wherein Xaa is Cys, Arg or Lys

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<221> VARIANT

<222> (13)

<223> wherein Xaa is Gly, Glu or Ser

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<222> (16)

<223> wherein Xaa is Asp or Glu

<220>

<221> VARIANT

<222> (18)

<223> wherein Xaa is Thr, Lys or Glu

<400> 40

Gln Ala Xaa Xaa Gly Asn Ile Asn Xaa Glu Xaa Pro Xaa Met Leu Xaa
1 5 10 15

Phe Xaa Gly Lys
20

<210> 41

<211> 19

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met

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1 5 10 15

Xaa Gly Lys

<210> 42

<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is any amino acid

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<222> (17)

<223> wherein Xaa is Phe or Leu

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<221> VARIANT

<222> (18)

<223> wherein Xaa is any amino acid

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<222> (20)

<223> wherein Xaa is Lys or Arg

<400> 42

Gln Ala Thr Val Gly Xaa Xaa Asn Xaa Xaa Xaa Pro Gly Xaa Xaa Asp

1 5 10 15

Xaa Xaa Gly Xaa

20

<210> 43

<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is Gly or Ala

<220>

<221> VARIANT

<222> (20)

<223> wherein Xaa is Lys or Arg

<400> 43

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1 5 10 15

Xaa Xaa Xaa Xaa

20

<210> 44

<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is Phe or Leu

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<222> (18)

<223> wherein Xaa is Lys, Ile or Glu

<400> 44

Gln Ala Xaa Xaa Gly Xaa Xaa Asn Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp

1 5 10 15

Xaa Xaa Gly Lys

20

<210> 45

<211> 20

<212> PRT

<213> Homo sapiens

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<223> wherein Xaa is any amino acid

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<221> VARIANT

<222> (15)

<223> wherein Xaa is Ala, Ile, Thr, Val, Phe, Leu or Met

<220>

<221> VARIANT

<222> (18)

<223> wherein Xaa is any amino acid

<400> 45

Gln Xaa Xaa Val Gly Xaa Xaa Asn Thr Xaa Xaa Pro Xaa Xaa Xaa Asp

1 5 10 15

Phe Xaa Gly Lys

20

<210> 46

<211> 687

<212> DNA

<213> Homo sapiens

<400> 46

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ccgcccacag cctccgccgc gcacgcgcag tcctcacgaa cgagcgcgcc aagcgcacag 120

cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccacc 180

ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tcccgtgagc 240

gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300

atccccggcc ctccggcctc agacgtgaga gccagggcca agtgggaggc ttggagcgcg 360

aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420

acgaagaagg aagtgggggg cgtggagcgc gaacaaaggg gcgtgcaaga tggacgccat 480

gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540

gccatgaggg gctacgcggc caaagtggag gagctgacga agaaggaagt ggggggcgtg 600

gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagtgag 660

gagatgagga agaaggaggc tggctga 687

<210> 47

<211> 228

<212> PRT

<213> Homo sapiens

<400> 47

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn
1 5 10 15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser
20 25 30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser
35 40 45

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys
50 55 60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser
65 70 75 80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln
85 90 95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg
100 105 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp
115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu
130 135 140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His
145 150 155 160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala
165 170 175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu
180 185 190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln
195 200 205

Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys
210 215 220

Lys Glu Ala Gly
225

<210> 48

<211> 576

<212> DNA

<213> Homo sapiens

<400> 48

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gccttccggc agagccctcc caccagccct cagcttctag caccagggac cgcctccacc 180

accccatgtg ccaagtggag ttcgagctgc gcggccctca agcagctgaa gggtcccgtg 240

agcgatcagg agaagctgct ggtctacggc ttgtacaaac aggccaccca gggcgactgc 300

gacatccccg gccctccggc ctcagacgtg agagccaggg ccaagtggga ggcttggagc 360

gcgaaaaaag gggcgtccaa gatggacgcc atgaggggct acgcggccaa agtggaggag 420

ctgacgaaga aggaagtggg gggcgtggag cgcgaacaaa ggggcgtgca agatggacgc 480

catgaggggc tacgcggcca aagtggagga gctgacgaag aaggaagtgg ggggcgtgga 540

gcgcgaacaa aggggcgtcc aagatggacg ccatga 576

<210> 49

<211> 191

<212> PRT

<213> Homo sapiens

<400> 49

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn
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Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His
20 25 30

Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr
35 40 45

Ser Pro Gln Leu Leu Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala
50 55 60

Lys Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val
65 70 75 80

Ser Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr
85 90 95

Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala
100 105 110

Arg Ala Lys Trp Glu Ala Trp Ser Ala Lys Lys Gly Ala Ser Lys Met
115 120 125

Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys
130 135 140

Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg
145 150 155 160

His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Ser
165 170 175

Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Pro Arg Trp Thr Pro
180 185 190

<210> 50

<211> 294

<212> DNA

<213> Homo sapiens

<400> 50

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ctgaaaacaa gaccagatga tgaagaactg aaagaacttt atgggcttta caaacaagct 120

gtaattggaa acattaatat tgagtgttca gaaatgctag aattaaaagg caaggccaaa 180

tgggaagcac agaaccccca aaaaggattg tcagaggaag atatgatgcg tgcctttatt 240

tctaaagccg aagagctgat agaaaaatat ggaatttaga ataaagcata tgat 294

<210> 51

<211> 293

<212> DNA

<213> Homo sapiens

<400> 51

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ttgaaaacaa aaccaactga cgatgaactg aaggaactgt acggactcta caagcagtcc 120

actgttgggg acataaatat agagtgtcct ggcatgctag atctgaaggg caaggccaag 180

tgggacgcat ggaacctaaa gaaaggcttg tctaaggaag atgcgatgag cgcttatgtt 240

tctaaagccc atgagctgat agaaaaatat ggcctgtaac aaggtcgcat gat 293

<210> 52

<211> 85

<212> PRT

<213> Homo sapiens

<400> 52

Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys Thr

1 5 10 15

Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln

20 25 30

Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu Leu

35 40 45

Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu Ser

50 55 60

Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu Ile

65 70 75 80

Glu Lys Tyr Gly Ile

85

<210> 53

<211> 85

<212> PRT

<213> Homo sapiens

<400> 53

Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu Lys Thr

1 5 10 15

Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr Lys Gln
20 25 30

Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Ile Ser
50 55 60

Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr Met Val
65 70 75 80

Glu Lys Tyr Gly Ile
85

<210> 54

<211> 86

<212> PRT

<213> Homo sapiens

<400> 54

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 55
<211> 86
<212> PRT
<213> Homo sapiens

<400> 55
Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 56
<211> 86
<212> PRT
<213> Homo sapiens

<400> 56
Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys
1 5 10 15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu

65 70 75 80

Lys Lys Lys Tyr Gly Ile

85

<210> 57

<211> 88

<212> PRT

<213> Homo sapiens

<400> 57

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys

1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu

20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met

35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys

50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile

85

<210> 58

<211> 82

<212> PRT

<213> Homo sapiens

<400> 58

Lys Arg Cys Ala Gly Ile Lys His Phe Lys Thr Lys Pro Ala Asp Asp

1 5 10 15

Glu Met Arg Phe Leu Tyr Gly His Tyr Lys Arg Ala Thr Val Gly Asn

20 25 30

Ile Lys Thr Glu Arg Pro Gly Met Val Asp Phe Lys Gly Lys Ala Lys

35 40 45

Trp Asp Pro Trp Asn Leu Val Lys Gly Ala Ala Arg Glu Asp Pro Met

50 55 60

Lys Ala Lys Ala Tyr Val Lys Lys Val Glu Glu Leu Lys Lys Lys Phe

65 70 75 80

Arg Ile

<210> 59

<211> 80

<212> PRT

<213> Homo sapiens

<400> 59

Lys Ala Ala Glu Glu Val Lys His Leu Lys Thr Lys Pro Ala Asp Glu
1 5 10 15

Glu Met Leu Phe Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp
20 25 30

Ile Asn Thr Glu Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys
35 40 45

Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr Ser Lys Glu Asp Ala Met
50 55 60

Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu Lys Lys Lys Tyr Gly Ile
65 70 75 80

<210> 60

<211> 91

<212> PRT

<213> Homo sapiens

<400> 60

Glu Lys Lys Lys Lys Lys Arg Cys Ala Gly Ile Lys His Phe Lys Thr
1 5 10 15

Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr Gly His Tyr Lys Arg
20 25 30

Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp Phe
35 40 45

Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu Val Lys Gly Ala Ala
50 55 60

Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val Lys Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Lys Phe Arg Ile Arg Glu Thr Gly
85 90

<210> 61

<211> 89

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (86)

<223> wherein * is any amino acid or no amino acid

<400> 61

Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys Thr
1 5 10 15

Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys Gln
20 25 30

Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp Phe
35 40 45

Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr Ser
50 55 60

Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu Lys
65 70 75 80

Lys Lys Tyr Gly Ile Glu Thr Gly
85

<210> 62

<211> 138

<212> PRT

<213> Homo sapiens

<400> 62

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly
1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Glu Asn
20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Lys Arg Cys Ala Gly Ile
35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr
50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro
65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu
85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val
100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn
130 135

<210> 63

<211> 86

<212> PRT

<213> Bos taurus

<400> 63

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 64

<211> 86

<212> PRT

<213> Homo sapiens

<400> 64

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys
1 5 10 15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 65

<211> 256

<212> DNA

<213> Homo sapiens

<400> 65

aggctgattt tgacagggct gcagaagatg tgaggaagct gaaagcaaga ccagatgatg 60

gagaactgaa agaactctat gggctttaca aacaagcaat agttggagac attaatattg 120

cgtgtccagg aatgctagat ttaaaaggca aagccaaatg ggaagcatgg aacctcaaaa 180

aagggttgtc gacggaagat gcgacgagtg cctatatttc taaagcaaag gagctgatag 240

aaaaatacgg aattta 256

<210> 66

<211> 256

<212> DNA

<213> Homo sapiens

<400> 66

aggcagattt tgacaaagca gcaggggatg taaagaaatt gaaaacaaaa ccaactgacg 60

atgaactgaa ggaactgtac ggactctaca agcagtccac tgttggggac ataaatatag 120

agtgtcctgg catgctagat ctgaagggca aggccaagtg ggacgcatgg aacctaaaga 180

aaggcttgtc taaggaagat gcgatgagcg cttatgtttc taaagcccat gagctgatag 240

aaaaatatgg cctgta 256

<210> 67

<211> 258

<212> DNA

<213> Homo sapiens

<400> 67

aggctgattt tgacagggct gcagaagatg tgaggaagct gaaagcaaga ccagatgatg 60

gagaactgaa agaactctat gggctttaca aacaagcaat agttggagac attaatattg 120

cgtgtccagg aatgctagat ttaaaaggca aagccaaatg ggaagcatgg aacctcaaaa 180

aagggttgtc gacggaagat gcgacgagtg cctatatttc taaagcaaag gagctgatag 240

aaaaatacgg aatttaga 258

<210> 68

<211> 259

<212> DNA

<213> Homo sapiens

<400> 68

aggctgagtt tgagaaagct gcagaggagg ttaggcacct taagaccaag ccatcggatg 60

aggagatgct gttcatctat ggccactaca aacaagcaac tgtgggcgac ataaatacag 120

aacggcccgg gatgttggac ttcacgggca aggccaagtg ggatgcctgg aatgagctga 180

aagggacttc caaggaagat gccatgaaag cttacatcaa caaagtagaa gagctaaaga 240

aaaaatacgg gatatgaga 259

<210> 69

<211> 88

<212> PRT

<213> Homo sapiens

<400> 69

Phe Phe Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met

35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 70

<211> 89

<212> PRT

<213> Homo sapiens

<400> 70

Phe Phe Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys
1 5 10 15

Lys Leu Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly
20 25 30

Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly
35 40 45

Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys

50 55 60

Lys Gly Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala
65 70 75 80

Lys Thr Met Val Glu Lys Tyr Gly Ile
85

<210> 71

<211> 85

<212> PRT

<213> Homo sapiens

<400> 71

Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala
1 5 10 15

Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln
20 25 30

Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser
50 55 60

Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile

65 70 75 80

Glu Lys Tyr Gly Ile
85

<210> 72

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (6)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (9)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (12)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (16)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (17)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (19)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (21)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (33)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (34)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (41)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (55)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (65)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (69)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (73)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (77)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (85)

<223> wherein Xaa is any amino acid

<400> 72

Xaa Ala Asp Phe Asp Xaa Ala Ala Xaa Asp Val Xaa Lys Leu Lys Xaa
1 5 10 15

Xaa Pro Xaa Asp Xaa Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln
20 25 30

Xaa Xaa Val Gly Asp Ile Asn Ile Xaa Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Xaa Ala Trp Asn Leu Lys Lys Gly Leu Ser
50 55 60

Xaa Glu Asp Ala Xaa Ser Ala Tyr Xaa Ser Lys Ala Xaa Glu Leu Ile
65 70 75 80

Glu Lys Tyr Gly Xaa
85

<210> 73

<211> 85

<212> PRT

<213> Homo sapiens

<400> 73

Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys Leu Lys Thr
1 5 10 15

Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln
20 25 30

Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp Leu
35 40 45

Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly Leu Ser
50 55 60

Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu Leu Ile
65 70 75 80

Glu Lys Tyr Gly Leu
85

<210> 74

<211> 96

<212> PRT

<213> Homo sapiens

<400> 74

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp
1 5 10 15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly
20 25 30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp
35 40 45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys
50 55 60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr
65 70 75 80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile
85 90 95

<210> 75

<211> 88

<212> PRT

<213> Frog

<400> 75

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Leu
85

<210> 76

<211> 103

<212> PRT

<213> Duck

<400> 76

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe
1 5 10 15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu
20 25 30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr
35 40 45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
50 55 60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
65 70 75 80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr
85 90 95

Met Val Glu Lys Tyr Gly Ile
100

<210> 77

<211> 87

<212> PRT

<213> Homo sapiens

<400> 77

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu
1 5 10 15

Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile
85

<210> 78

<211> 274

<212> DNA

<213> Homo sapiens

<400> 78

ccaccatggc actgcaggct gaattcgaca aggctgcaga agacgtgagg aagctgccaa 60

caagaccagc agataataaa gaactgaaaa aactcgatgg actttacaaa caagctataa 120

ttggagacat taatattgag tatctgggaa tgctggactt taagggcaag gccaaatgcg 180

cagcatggac cctccaaaaa aggttgtcaa aggaagatgc aacgagtgtc tctatttcta 240

aggcaaaaga gccgatagaa aaataggaca ttta 274

<210> 79

<211> 271

<212> DNA

<213> Homo sapiens

<400> 79

caaccatgtc accccaggca gattttgaca aagcagcagg ggatgtaaag aaattgaaaa 60

caaaaccaac tgacgatgaa ctgaaggaac tgtacggact ctacaagcag tccactgttg 120

gggacataaa tatagagtgt cctggcatgc tagatctgaa gggcaaggcc aagtgggacg 180

catggaacct aaagaaaggc ttgtctaagg aagatgcgat gagcgcttat gtttctaaag 240

cccatgagct gatagaaaaa tatggcctgt a 271

<210> 80

<211> 262

<212> DNA

<213> Homo sapiens

<400> 80

caggctgaat tcgacaaggc tgcagaagac gtgaggaagc tgccaacaag accagcagat 60

aataaagaac tgaaaaaact cgatggactt tacaaacaag ctataattgg agacattaat 120

attgagtatc tgggaatgct ggactttaag ggcaaggcca aatgcgcagc atggaccctc 180

caaaaaaggt tgtcaaagga agatgcaacg agtgtctcta tttctaaggc aaaagagccg 240

atagaaaaat aggacattta ga 262

<210> 81

<211> 260

<212> DNA

<213> Homo sapiens

<400> 81

caggctgagt ttgagaaagc tgcagaggag gttaggcacc ttaagaccaa gccatcggat 60

gaggagatgc tgttcatcta tggccactac aaacaagcaa ctgtgggcga cataaataca 120

gaacggcccg ggatgttgga cttcacgggc aaggccaagt gggatgcctg gaatgagctg 180

aaagggactt ccaaggaaga tgccatgaaa gcttacatca acaaagtaga agagctaaag 240

aaaaaatacg ggatatgaga 260

<210> 82

<211> 86

<212> PRT

<213> Homo sapiens

<400> 82

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly
35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys

85

<210> 83

<211> 85

<212> PRT

<213> Homo sapiens

<400> 83

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys
85

<210> 84

<211> 88

<212> PRT

<213> Frog

<400> 84

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Leu
85

<210> 85

<211> 103

<212> PRT

<213> Duck

<400> 85

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe
1 5 10 15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu
20 25 30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr
35 40 45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
50 55 60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
65 70 75 80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr
85 90 95

Met Val Glu Lys Tyr Gly Ile
100

<210> 86

<211> 87

<212> PRT

<213> Homo sapiens

<400> 86

Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu
1 5 10 15

Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu
65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile
85

<210> 87

<211> 86

<212> PRT

<213> Homo sapiens

<400> 87

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly
35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys
85

<210> 88

<211> 530

<212> PRT

<213> Homo sapiens

<400> 88

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu
20 25 30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala
35 40 45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr
50 55 60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
65 70 75 80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
85 90 95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
100 105 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met
115 120 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
130 135 140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
145 150 155 160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn

165 170 175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu
195 200 205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys
210 215 220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
225 230 235 240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
245 250 255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
260 265 270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn
275 280 285

Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
290 295 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
305 310 315 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr
325 330 335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu
340 345 350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val
355 360 365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly
370 375 380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr
385 390 395 400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His
405 410 415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly
420 425 430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln
435 440 445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
450 455 460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr
465 470 475 480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg
530

<210> 89
<211> 530
<212> PRT
<213> Homo sapiens

<400> 89
Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg
20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala
35 40 45

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro
50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr
65 70 75 80

Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp Pro Val Gly
85 90 95

Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu
100 105 110

Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Leu Glu Thr
115 120 125

Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu His Val Ile Gly Pro
130 135 140

Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Leu
145 150 155 160

Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly
165 170 175

Asn Val Leu Ala Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala

180 185 190

Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Ala Gln Glu
195 200 205

Asp Pro Lys Arg Pro Glu Pro Arg Asp Ser Asp Lys Lys Met Met Lys
210 215 220

Lys Ser Ala Asp His Lys Asn Leu Glu Ile Ile Val Thr Asn Gly Tyr
225 230 235 240

Asp Lys Asp Ser Phe Val Gln Gly Val Gln Asn Ser Ile His Thr Ser
245 250 255

Pro Ser Leu Asn Gly Arg Cys Thr Glu Glu Val Lys Ser Val Asp Glu
260 265 270

Asn Leu Glu Gln Thr Gly Lys Thr Val Val Phe Val His Gln Asp Val
275 280 285

Asn Ser Asp His Val Glu Asp Ile Ser Gly Ile Gln His Leu Thr Ser
290 295 300

Asp Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln
305 310 315 320

Glu Glu Ser Leu Asp Gly Phe Ile Ser Asn Asn Gly Pro Phe Ser Tyr
325 330 335

Tyr Leu Gly Gly Asn Pro Ser Gln Pro Leu Glu Ser Ser Gly Phe Pro
340 345 350

Glu Ala Val Gln Gly Leu Pro Gly Asn Gly Ser Pro Glu Asp Met Gln
355 360 365

Gly Ala Val Val Glu Gly Lys Gly Glu Val Lys Arg Gly Gly Glu Asp
370 375 380

Gly Gly Ser Asn Ser Gly Ala Pro His Arg Glu Lys Arg Ala Gly Glu
385 390 395 400

Ser Glu Glu Phe Ser Asn Ile Arg Arg Gly Arg Gly His Arg Met Gln
405 410 415

His Leu Ser Glu Gly Ser Lys Gly Arg Gln Val Gly Ser Gly Gly Asp
420 425 430

Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu
435 440 445

Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val
450 455 460

Leu Gln Arg Leu His Lys Leu Glu Met Leu Ala Ala Ser Gln Ala Lys
465 470 475 480

Ser Ser Ala Leu Gln Thr Ser Asn Gln Pro Thr Ser Pro Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Ala Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val His Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg
530

<210> 90

<211> 86

<212> PRT

<213> Homo sapiens

<400> 90

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile
85

<210> 91

<211> 87

<212> PRT

<213> Homo sapiens

<400> 91

Met Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu
1 5 10 15

Lys Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr
20 25 30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
35 40 45

Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
50 55 60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu

65 70 75 80

Leu Lys Lys Lys Tyr Gly Ile

85

<210> 92

<211> 104

<212> PRT

<213> Homo sapiens

<400> 92

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly

1 5 10 15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His

20 25 30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His

35 40 45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met

50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys

65 70 75 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu
85 90 95

Glu Leu Lys Lys Lys Tyr Gly Ile
100

<210> 93

<211> 104

<212> PRT

<213> Homo sapiens

<400> 93

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly
1 5 10 15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His
20 25 30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His
35 40 45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met
50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys
65 70 75 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu
85 90 95

Glu Leu Lys Lys Lys Tyr Gly Ile
100

<210> 94

<211> 359

<212> PRT

<213> Homo sapiens

<400> 94

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys
1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala
20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly
35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu
50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val
65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly
85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr
145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly
165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe
180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn
195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu

225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 95

<211> 359

<212> PRT

<213> Homo sapiens

<400> 95

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys
1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala
20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly
35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu
50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val
65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly
85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr
145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly
165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe
180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn
195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu
225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 96
<211> 282
<212> PRT
<213> Homo sapiens

<400> 96
Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly
1 5 10 15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys
35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
65 70 75 80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
85 90 95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln
100 105 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln
115 120 125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Gly Pro
130 135 140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys
145 150 155 160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys

165 170 175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly
180 185 190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val
195 200 205

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu
210 215 220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile
225 230 235 240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln
245 250 255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu
260 265 270

Val Leu Gln Arg His Thr Thr Gly Lys Ala
275 280

<210> 97

<211> 281

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (146)

<223> wherein * is any amino acid or no amino acid

<220>

<221> VARIANT

<222> (151)

<223> wherein * is any amino acid or no amino acid

<400> 97

Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly
1 5 10 15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys
35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
65 70 75 80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
85 90 95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln
100 105 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln
115 120 125

Ile Pro Glu Lys Lys Arg Lys Arg Ser Lys Tyr Lys Val Trp Ala Ser
130 135 140

Tyr Phe Ser Ile Ser Arg Asn His Gln Gly Arg Asp Lys Asn Ile Phe
145 150 155 160

Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys Ala Ile Lys
165 170 175

Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly Arg Ala Leu
180 185 190

Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val Thr Val Leu
195 200 205

Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu Gly Gln Thr
210 215 220

Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile Val Glu Leu
225 230 235 240

Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln Asp Gly Cys

245 250 255

Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu Val Leu Gln

260 265 270

Arg His Thr Thr Gly Lys Ala

275

<210> 98

<211> 89

<212> PRT

<213> Homo sapiens

<400> 98

Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala

1 5 10 15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val

20 25 30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly

35 40 45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser

50 55 60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala

65 70 75 80

Lys Val Glu Glu Leu Thr Lys Lys Glu
85

<210> 99

<211> 104

<212> PRT

<213> Homo sapiens

<400> 99

Met Trp Gly Asp Leu Trp Leu Leu Pro Pro Ala Ser Ala Asn Pro Gly
1 5 10 15

Thr Gly Thr Glu Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His
20 25 30

Leu Lys Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His
35 40 45

Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met
50 55 60

Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys
65 70 75 80

Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu

85 90 95

Glu Leu Lys Lys Lys Tyr Gly Ile
100

<210> 100

<211> 86

<212> PRT

<213> Homo sapiens

<400> 100

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Trp Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile

85

<210> 101

<211> 138

<212> PRT

<213> Homo sapiens

<400> 101

Met Ala Lys Pro Ile Ser Thr Lys Asn Thr Lys Ile Ser Arg His Gly
1 5 10 15

Trp His Ala Ala Val Ile Thr Ala Ala Arg Glu Ala Glu Ala Glu Asn
20 25 30

His Leu Ser Trp Glu Glu Lys Lys Lys Lys Lys Arg Cys Ala Gly Ile
35 40 45

Lys His Phe Lys Thr Lys Pro Ala Asp Asp Glu Met Arg Phe Leu Tyr
50 55 60

Gly His Tyr Lys Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro
65 70 75 80

Gly Met Val Asp Phe Lys Gly Lys Ala Lys Trp Asp Pro Trp Asn Leu
85 90 95

Val Lys Gly Ala Ala Arg Glu Asp Pro Met Lys Ala Lys Ala Tyr Val

100 105 110

Lys Lys Val Glu Glu Leu Lys Lys Lys Phe Arg Ile Arg Glu Thr Gly
115 120 125

Ile Val Ala Ser His Ala Phe Val Leu Asn
130 135

<210> 102

<211> 96

<212> PRT

<213> Homo sapiens

<400> 102

Met Leu Leu Leu Phe Val Cys Leu Phe Phe Leu Lys Ala Asp Phe Asp
1 5 10 15

Arg Ala Ala Glu Asp Val Arg Lys Leu Lys Ala Arg Pro Asp Asp Gly
20 25 30

Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys Gln Ala Ile Val Gly Asp
35 40 45

Ile Asn Ile Ala Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys
50 55 60

Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu Ser Thr Glu Asp Ala Thr

65 70 75 80

Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu Ile Glu Lys Tyr Gly Ile
85 90 95

<210> 103

<211> 88

<212> PRT

<213> Homo sapiens

<400> 103

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu

65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 104

<211> 86

<212> PRT

<213> Homo sapiens

<400> 104

Met Ala Leu Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Arg Lys
1 5 10 15

Leu Pro Thr Arg Pro Ala Asp Asn Lys Glu Leu Lys Lys Leu Asp Gly
20 25 30

Leu Tyr Lys Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly
35 40 45

Met Leu Asp Phe Lys Gly Lys Ala Lys Cys Ala Ala Trp Thr Leu Gln
50 55 60

Lys Arg Leu Ser Lys Glu Asp Ala Thr Ser Val Ser Ile Ser Lys Ala
65 70 75 80

Lys Glu Pro Ile Glu Lys

85

<210> 105

<211> 282

<212> PRT

<213> Homo sapiens

<400> 105

Met Ala Ser Ser Phe Leu Pro Ala Gly Ala Ile Thr Gly Asp Ser Gly
1 5 10 15

Gly Glu Leu Ser Ser Gly Asp Asp Ser Gly Glu Val Glu Phe Pro His
20 25 30

Ser Pro Glu Ile Glu Glu Thr Ser Cys Leu Ala Glu Leu Phe Glu Lys
35 40 45

Ala Ala Ala His Leu Gln Gly Leu Ile Gln Val Ala Ser Arg Glu Gln
50 55 60

Leu Leu Tyr Leu Tyr Ala Arg Tyr Lys Gln Val Lys Val Gly Asn Cys
65 70 75 80

Asn Thr Pro Lys Pro Ser Phe Phe Asp Phe Glu Gly Lys Gln Lys Trp
85 90 95

Glu Ala Trp Lys Ala Leu Gly Asp Ser Ser Pro Ser Gln Ala Met Gln

100 105 110

Glu Tyr Ile Ala Val Val Lys Lys Leu Asp Pro Gly Trp Asn Pro Gln
115 120 125

Ile Pro Glu Lys Lys Gly Lys Glu Ala Asn Thr Gly Phe Gly Gly Pro
130 135 140

Val Ile Ser Ser Leu Tyr His Glu Glu Thr Ile Arg Glu Glu Asp Lys
145 150 155 160

Asn Ile Phe Asp Tyr Cys Arg Glu Asn Asn Ile Asp His Ile Thr Lys
165 170 175

Ala Ile Lys Ser Lys Asn Val Asp Val Asn Val Lys Asp Glu Glu Gly
180 185 190

Arg Ala Leu Leu His Trp Ala Cys Asp Arg Gly His Lys Glu Leu Val
195 200 205

Thr Val Leu Leu Gln His Arg Ala Asp Ile Asn Cys Gln Asp Asn Glu
210 215 220

Gly Gln Thr Ala Leu His Tyr Ala Ser Ala Cys Glu Phe Leu Asp Ile
225 230 235 240

Val Glu Leu Leu Leu Gln Ser Gly Ala Asp Pro Thr Leu Arg Asp Gln
245 250 255

Asp Gly Cys Leu Pro Glu Glu Val Thr Gly Cys Lys Thr Val Ser Leu
260 265 270

Val Leu Gln Arg His Thr Thr Gly Lys Ala
275 280

<210> 106

<211> 359

<212> PRT

<213> Homo sapiens

<400> 106

Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser Met Asn Gln Val Lys
1 5 10 15

Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys Leu Tyr Ala
20 25 30

Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly
35 40 45

Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp Asn Ala Leu
50 55 60

Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn Tyr Val Asp Leu Val
65 70 75 80

Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val Glu Pro Gly
85 90 95

Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val Thr Ser Glu
100 105 110

Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys Lys Asn Ala
115 120 125

Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala
130 135 140

Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr
145 150 155 160

Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly
165 170 175

Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe
180 185 190

Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn
195 200 205

Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu
225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 107

<211> 530

<212> PRT

<213> Homo sapiens

<400> 107

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg Gly Gln His Trp Gln Leu
20 25 30

Glu Met Ala Asp Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala Ala
35 40 45

Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro Thr
50 55 60

Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr Glu
65 70 75 80

Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp Pro Ile Gly Arg
85 90 95

Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu Glu
100 105 110

Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Ile Glu Thr Met

115 120 125

Pro Met Thr Glu Lys Val Glu Glu Leu Leu Arg Val Ile Gly Pro Phe
130 135 140

Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Ile Thr
145 150 155 160

Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly Asn
165 170 175

Val Leu Thr Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu
180 185 190

Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Glu Ala Gln Glu Glu
195 200 205

Val Lys Gly Ala Glu His Ser Asp Asn Asp Lys Lys Met Met Lys Lys
210 215 220

Ser Ala Asp His Lys Asn Leu Glu Val Ile Val Thr Asn Gly Tyr Asp
225 230 235 240

Lys Asp Gly Phe Val Gln Asp Ile Gln Asn Asp Ile His Ala Ser Ser
245 250 255

Ser Leu Asn Gly Arg Ser Thr Glu Glu Val Lys Pro Ile Asp Glu Asn
260 265 270

Leu Gly Gln Thr Gly Lys Ser Ala Val Cys Ile His Gln Gly Ile Asn
275 280 285

Asp Asp His Val Glu Asp Val Thr Gly Ile Gln His Leu Thr Ser Asp
290 295 300

Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln Glu
305 310 315 320

Glu Ser Leu Asp Ser Phe Thr Ser Asn Asn Gly Pro Phe Gln Tyr Tyr
325 330 335

Leu Gly Gly His Ser Ser Gln Pro Met Glu Asn Ser Gly Phe Arg Glu
340 345 350

Asp Ile Gln Val Pro Pro Gly Asn Gly Asn Ile Gly Asn Met Gln Val
355 360 365

Val Ala Val Glu Gly Lys Gly Glu Val Lys His Gly Gly Glu Asp Gly
370 375 380

Arg Asn Asn Ser Gly Ala Pro His Arg Glu Lys Arg Gly Gly Glu Thr
385 390 395 400

Asp Glu Phe Ser Asn Val Arg Arg Gly Arg Gly His Arg Met Gln His
405 410 415

Leu Ser Glu Gly Thr Lys Gly Arg Gln Val Gly Ser Gly Gly Asp Gly
420 425 430

Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu Gln
435 440 445

Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val Leu
450 455 460

Gln Arg Leu Gln Lys Leu Glu Thr Leu Thr Ala Ala Lys Ser Ser Thr
465 470 475 480

Ser Thr Leu Gln Thr Ala Pro Gln Pro Thr Ser Ser Gln Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Val Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val Tyr Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg
530

<210> 108

<211> 20

<212> PRT

<213> Homo sapiens

<400> 108

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
1 5 10 15

Phe Thr Gly Lys
20

<210> 109

<211> 20

<212> PRT

<213> Homo sapiens

<400> 109

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp
1 5 10 15

Phe Lys Gly Lys
20

<210> 110

<211> 20

<212> PRT

<213> Homo sapiens

<400> 110

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu
1 5 10 15

Leu Lys Gly Lys
20

<210> 111

<211> 20

<212> PRT

<213> Homo sapiens

<400> 111

Gln Ala Ile Ile Gly Asp Ile Asn Ile Glu Tyr Leu Gly Met Leu Asp
1 5 10 15

Phe Lys Gly Lys
20

<210> 112

<211> 20

<212> PRT

<213> Homo sapiens

<400> 112

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp

1 5 10 15

Leu Lys Gly Lys
20

<210> 113

<211> 20

<212> PRT

<213> Homo sapiens

<400> 113

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
1 5 10 15

Leu Lys Gly Lys
20

<210> 114

<211> 20

<212> PRT

<213> Homo sapiens

<400> 114

Gln Val Lys Val Gly Asn Cys Asn Thr Pro Lys Pro Ser Phe Phe Asp
1 5 10 15

Phe Glu Gly Lys

20

<210> 115

<211> 20

<212> PRT

<213> Homo sapiens

<400> 115

Gln Ala Thr Glu Gly Pro Cys Asn Met Pro Lys Pro Gly Val Phe Asp

1 5 10 15

Leu Ile Asn Lys

20

<210> 116

<211> 20

<212> PRT

<213> Homo sapiens

<400> 116

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe Trp Asp

1 5 10 15

Pro Ile Gly Arg

20

<210> 117

<211> 20

<212> PRT

<213> Homo sapiens

<400> 117

Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp

1 5 10 15

Val Arg Ala Arg

20

<210> 118

<211> 18

<212> PRT

<213> Homo sapiens

<400> 118

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp

1 5 10 15

Phe Thr

<210> 119

<211> 18

<212> PRT

<213> Homo sapiens

<400> 119

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp

1 5 10 15

Leu Lys

<210> 120

<211> 18

<212> PRT

<213> Homo sapiens

<400> 120

Arg Ala Thr Val Gly Asn Ile Lys Thr Glu Arg Pro Gly Met Val Asp

1 5 10 15

Phe Lys

<210> 121

<211> 32

<212> PRT

<213> Bos taurus

<400> 121

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 122

<211> 32

<212> PRT

<213> Homo sapiens

<400> 122

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 123

<211> 32

<212> PRT

<213> Drosophila melanogaster

<400> 123

Leu Tyr Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Cys Asn Thr Asp
1 5 10 15

Lys Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Glu Ala Trp
20 25 30

<210> 124

<211> 32

<212> PRT

<213> Gallus gallus

<400> 124

Val Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp

20 25 30

<210> 125

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 125

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 126

<211> 32

<212> PRT

<213> Homo sapiens

<400> 126

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 127

<211> 32

<212> PRT

<213> turtle

<400> 127

Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 128

<211> 32

<212> PRT

<213> mallard

<400> 128

Val Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 129

<211> 32

<212> PRT

<213> Mus musculus

<400> 129

Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Val Asn Thr Asp
1 5 10 15

Arg Pro Gly Leu Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ser Trp

20 25 30

<210> 130

<211> 32

<212> PRT

<213> Sus scrofa

<400> 130

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Ile Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 131

<211> 32

<212> PRT

<213> Bos taurus

<400> 131

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 132

<211> 32

<212> PRT

<213> Homo sapiens

<400> 132

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 133

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 133

Ile Tyr Ser His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 134

<211> 32

<212> PRT

<213> Homo sapiens

<400> 134

Ile Tyr Gly His Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp

20 25 30

<210> 135

<211> 32

<212> PRT

<213> Anas platyrhynchos

<400> 135

Leu Tyr Gly Phe Tyr Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu
1 5 10 15

Cys Pro Gly Met Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp
20 25 30

<210> 136

<211> 32

<212> PRT

<213> turtle

<400> 136

Ile Tyr Ser His Phe Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu
1 5 10 15

Arg Pro Gly Phe Leu Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp
20 25 30

<210> 137

<211> 20

<212> PRT

<213> Homo sapiens

<400> 137

Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu Asp
1 5 10 15

Leu Lys Gly Lys
20

<210> 138

<211> 20

<212> PRT

<213> Homo sapiens

<400> 138

Gln Ala Ser Val Gly Asp Asn Asp Thr Ala Lys Pro Gly Leu Leu Asp
1 5 10 15

Leu Lys Gly Lys
20

<210> 139

<211> 20

<212> PRT

<213> Homo sapiens

<400> 139

Gln Ala Ser Val Gly Asp Asn Asp Thr Ala Lys Pro Gly Leu Leu Asp
1 5 10 15

Leu Lys Gly Lys
20

<210> 140

<211> 20

<212> PRT

<213> Homo sapiens

<400> 140

Gln Ala Thr Val Gly Asp Asn Asn Thr Glu Lys Pro Gly Leu Leu Asp

1 5 10 15

Leu Lys Gly Lys
20

<210> 141

<211> 20

<212> PRT

<213> Bos taurus

<400> 141

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
1 5 10 15

Phe Lys Gly Lys
20

<210> 142

<211> 20

<212> PRT

<213> Mus musculus

<400> 142

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp
1 5 10 15

Leu Lys Gly Lys

20

<210> 143

<211> 20

<212> PRT

<213> Rattus norvegicus

<400> 143

Gln Ala Thr Val Gly Asp Val Asn Thr Asp Arg Pro Gly Leu Leu Asp

1 5 10 15

Leu Lys Gly Lys

20

<210> 144

<211> 20

<212> PRT

<213> Sus scrofa

<400> 144

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp

1 5 10 15

Leu Lys Gly Lys

20

<210> 145

<211> 20

<212> PRT

<213> Bos taurus

<400> 145

Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp

1 5 10 15

Pro Val Gly Arg

20

<210> 146

<211> 20

<212> PRT

<213> Cyprinus carpio

<400> 146

Gln Ala Thr Gln Gly Pro Cys Asn Thr Pro Lys Pro Ser Met Leu Asp

1 5 10 15

Phe Val Asn Lys

20

<210> 147

<211> 20

<212> PRT

<213> Mus musculus

<400> 147

Gln Ala Thr Glu Gly Thr Cys Asn Met Pro Lys Pro Gly Met Leu Asp

1 5 10 15

Phe Val Asn Lys

20

<210> 148

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (2)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (3)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (6)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (7)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (10)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (11)

<223> wherein Xaa is Arg or Lys

<220>

<221> VARIANT

<222> (13)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (14)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (15)

<223> wherein Xaa is any amino acid

<220>

<221> VARIANT

<222> (18)

<223> wherein Xaa is any amino acid

<400> 148

Gln Xaa Xaa Val Gly Xaa Xaa Asn Thr Xaa Xaa Pro Xaa Xaa Xaa Asp
1 5 10 15

Phe Xaa Gly Lys
20

<210> 149

<211> 89

<212> PRT

<213> Homo sapiens

<400> 149

Thr Ala Ser Thr Thr Pro Cys Ala Lys Trp Ser Ser Ser Cys Ala Ala
1 5 10 15

Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val
20 25 30

Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp Ile Pro Gly
35 40 45

Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu Ala Trp Ser
50 55 60

Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala
65 70 75 80

Lys Val Glu Glu Leu Thr Lys Lys Glu
85

<210> 150

<211> 228

<212> PRT

<213> Homo sapiens

<400> 150

Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn
1 5 10 15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser
20 25 30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser
35 40 45

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys
50 55 60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser
65 70 75 80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln
85 90 95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg
100 105 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp
115 120 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu
130 135 140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His
145 150 155 160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala
165 170 175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu
180 185 190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln
195 200 205

Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys
210 215 220

Lys Glu Ala Gly
225

<210> 151
<211> 191
<212> PRT
<213> Homo sapiens

<400> 151
Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn
1 5 10 15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Ser Pro His
20 25 30

Glu Arg Ala Arg Gln Ala Ser Arg Ala Phe Arg Gln Ser Pro Pro Thr
35 40 45

Ser Pro Gln Leu Leu Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala
50 55 60

Lys Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val
65 70 75 80

Ser Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr
85 90 95

Gln Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala
100 105 110

Arg Ala Lys Trp Glu Ala Trp Ser Ala Lys Lys Gly Ala Ser Lys Met
115 120 125

Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys
130 135 140

Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg
145 150 155 160

His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Ser
165 170 175

Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Pro Arg Trp Thr Pro
180 185 190

<210> 152

<211> 687

<212> DNA

<213> Homo sapiens

<400> 152

atgggagacg caggagccac ggcggccgcg cttaggcctg ctcacaacct ccgcccggcc 60

ccgcccacag cctccgccgc gcacgcgcag tcctcacgaa cgagcgcgcc aagcgcacag 120

cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccacc 180

ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tcccgtgagc 240

gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300

atccccggcc ctccggcctc agacgtgaga gccagggcca agtgggaggc ttggagcgcg 360

aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420

acgaagaagg aagtgggggg cgtggagcgc gaacaaaggg gcgtgcaaga tggacgccat 480

gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540

gccatgaggg gctacgcggc caaagtggag gagctgacga agaaggaagt ggggggcgtg 600

gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagtgag 660

gagatgagga agaaggaggc tggctga 687

<210> 153

<211> 99

<212> PRT

<213> Homo sapiens

<400> 153

Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
1 5 10 15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr
20 25 30

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
35 40 45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Gln Arg Gly Val

```
     50                  55                  60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp
 65                  70                  75                  80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg
                 85                  90                  95

Trp Thr Pro
```

<210> 154

<211> 99

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (61)

<223> wherein Xaa is any amino acid

<400> 154

```
Met Cys Gln Val Glu Phe Glu Leu Arg Gly Pro Gln Ala Ala Glu Gly
  1               5                  10                  15

Ser Arg Glu Arg Ser Gly Glu Ala Ala Gly Leu Arg Leu Val Gln Thr
             20                  25                  30

Gly His Pro Gly Arg Leu Arg His Pro Arg Pro Ser Gly Leu Arg Arg
         35                  40                  45

Glu Ser Gln Gly Gln Val Gly Gly Leu Glu Arg Glu Xaa Arg Gly Val
     50                  55                  60

Gln Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp
 65                  70                  75                  80

Glu Glu Gly Ser Gly Gly Arg Gly Ala Arg Thr Lys Gly Arg Ala Arg
                 85                  90                  95

Trp Thr Pro
```

<210> 155

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (25)

<223> wherein Xaa is any amino acid

<400> 155

Met Cys Gln Val Glu Phe Glu Leu Ala His Thr Ala Leu Lys Gln Leu
1 5 10 15

Lys Gly Thr Val Cys Asp Gln Glu Xaa Thr Ala Gly Val Gln Leu Leu
20 25 30

Gln Thr Ala His Pro Glu Arg Leu Gln His Pro Cys Pro Phe Ser Leu
35 40 45

Arg Cys Glu Ser Gln Gly Gln Val Gly Gly Met Glu Cys Glu Gln Arg
50 55 60

Asp Val
65

<210> 156

<211> 687

<212> DNA

<213> Homo sapiens

<400> 156

atgggagacg caggagccac ggcggccgcg cttaggcctg ctcacaacct ccgcccggcc 60

ccgcccacag cctccgccgc gcacgcgcag tcctcacgaa cgagcgcgcc aagcgcacag 120

cgccgccttc cggcagagcc ctcccaccag ccctcagcac cagggaccgc ctccaccacc 180

ccatgtgcca agtggagttc gagctgcgcg gccctcaagc agctgaaggg tcccgtgagc 240

gatcaggaga agctgctggt ctacggcttg tacaaacagg ccacccaggg cgactgcgac 300

atccccggcc ctccggcctc agacgtgaga gccagggcca agtgggaggc ttggagcgcg 360

aacaaagggg cgtccaagat ggacgccatg aggggctacg cggccaaagt ggaggagctg 420

acgaagaagg aagtgggggg cgtggagcgc gaacaaaggg gcgtgcaaga tggacgccat 480

gaggggctac gcggccaaag tggaggagct gacgaagaag gaagggcgtc caagatggac 540

gccatgaggg gctacgcggc caaagtggag gagctgacga agaaggaagt ggggggcgtg 600

gagcgcgaac aaaggggcgt ccaagatgga cgccatgagg ggctacgcgg ccagagtgag 660

gagatgagga agaaggaggc tggctga 687

<210> 157

<211> 228

<212> PRT

<213> Homo sapiens

<400> 157

```
Met Gly Asp Ala Gly Ala Thr Ala Ala Ala Leu Arg Pro Ala His Asn
  1               5                  10                  15

Leu Arg Pro Ala Pro Pro Thr Ala Ser Ala Ala His Ala Gln Ser Ser
             20                  25                  30

Arg Thr Ser Ala Pro Ser Ala Gln Arg Arg Leu Pro Ala Glu Pro Ser
         35                  40                  45

His Gln Pro Ser Ala Pro Gly Thr Ala Ser Thr Thr Pro Cys Ala Lys
     50                  55                  60

Trp Ser Ser Ser Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser
 65                  70                  75                  80

Asp Gln Glu Lys Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln
                 85                  90                  95

Gly Asp Cys Asp Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg
            100                 105                 110

Ala Lys Trp Glu Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp
        115                 120                 125

Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu
    130                 135                 140

Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln Asp Gly Arg His
145                 150                 155                 160

Glu Gly Leu Arg Gly Gln Ser Gly Gly Ala Asp Glu Glu Gly Arg Ala
                165                 170                 175

Ser Lys Met Asp Ala Met Arg Gly Tyr Ala Ala Lys Val Glu Glu Leu
            180                 185                 190

Thr Lys Lys Glu Val Gly Gly Val Glu Arg Glu Gln Arg Gly Val Gln
        195                 200                 205
```

```
Asp Gly Arg His Glu Gly Leu Arg Gly Gln Ser Glu Glu Met Arg Lys
    210                 215                 220

Lys Glu Ala Gly
225
```

<210> 158

<211> 87

<212> PRT

<213> Bos taurus

<400> 158

```
Met Cys Gln Val Glu Phe Glu Met Ala Cys Ala Ala Ile Lys Gln Leu
  1               5                  10                  15

Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Tyr Tyr
             20                  25                  30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Ala Pro Pro Ala Thr
         35                  40                  45

Asp Leu Lys Ala Lys Ala Lys Trp Glu Ala Trp Asn Glu Asn Lys Gly
     50                  55                  60

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu
 65                  70                  75                  80

Leu Lys Lys Asn Glu Ala Gly
                 85
```

<210> 159

<211> 87

<212> PRT

<213> Mus musculus

<400> 159

```
Met Ser Gln Val Glu Phe Glu Met Ala Cys Ala Ser Leu Lys Gln Leu
  1               5                  10                  15

Lys Gly Pro Val Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Phe Tyr
             20                  25                  30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Val Pro Pro Ala Thr
```

```
         35                  40                  45

Asp Val Arg Ala Lys Ala Lys Tyr Glu Ala Trp Met Val Asn Lys Gly
     50                  55                  60

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu
 65                  70                  75                  80

Leu Lys Lys Lys Glu Pro Cys
                 85
```

<210> 160

<211> 87

<212> PRT

<213> Rattus norvegicus

<400> 160

```
Met Ser Gln Val Glu Phe Glu Met Ala Cys Ala Ser Leu Lys Gln Leu
  1               5                  10                  15

Lys Gly Pro Leu Ser Asp Gln Glu Lys Leu Leu Val Tyr Ser Phe Tyr
             20                  25                  30

Lys Gln Ala Thr Gln Gly Asp Cys Asn Ile Pro Val Pro Pro Ala Thr
         35                  40                  45

Asp Val Lys Ala Lys Ala Lys Trp Glu Ala Trp Met Val Asn Lys Gly
     50                  55                  60

Met Ser Lys Met Asp Ala Met Arg Ile Tyr Ile Ala Lys Val Glu Glu
 65                  70                  75                  80

Leu Lys Lys Asn Glu Thr Cys
                 85
```

<210> 161

<211> 80

<212> PRT

<213> Callithrix Jacchus

<400> 161

```
Leu Ala Arg Thr Ala Leu Lys Gln Leu Lys Gly Pro Leu Ser Asp Gln
  1               5                  10                  15

Asp Lys Leu Leu Leu Tyr Gly Trp Tyr Lys Gln Ala Thr Arg Gly Asp
```

```
            20                  25                  30

Cys His Leu Pro Ala Pro Pro Ala Ser Asp Leu Lys Ala Lys Ala Lys
         35                  40                  45

Trp Glu Ala Trp Thr Ala Asn Gln Gly Leu Ser Arg Met Asp Ala Met
     50                  55                  60

Arg Ala Tyr Val Ala Lys Val Glu Glu Leu Thr Arg Lys Glu Ala Gly
 65                  70                  75                  80
```

<210> 162

<211> 59

<212> PRT

<213> Macaca fascicularis

<400> 162

```
Leu Ala Arg Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Pro
  1               5                  10                  15

Glu Lys Leu Leu Ile Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp
            20                  25                  30

Cys Gly Ile Pro Ala Pro Pro Ala Ser Asp Val Lys Ala Arg Ala Lys
         35                  40                  45

Trp Glu Ala Trp Ser Ala Asn Lys Gly Val Ser
     50                  55
```

<210> 163

<211> 89

<212> PRT

<213> Homo sapiens

<400> 163

```
Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
  1               5                  10                  15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
            20                  25                  30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
         35                  40                  45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu
```

```
     50                  55                  60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
 65                  70                  75                  80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
                 85
```

<210> 164

<211> 77

<212> PRT

<213> Homo sapiens

<400> 164

```
Cys Ala Ala Leu Lys Gln Leu Lys Gly Pro Val Ser Asp Gln Glu Lys
  1               5                  10                  15

Leu Leu Val Tyr Gly Leu Tyr Lys Gln Ala Thr Gln Gly Asp Cys Asp
             20                  25                  30

Ile Pro Gly Pro Pro Ala Ser Asp Val Arg Ala Arg Ala Lys Trp Glu
         35                  40                  45

Ala Trp Ser Ala Asn Lys Gly Ala Ser Lys Met Asp Ala Met Arg Gly
     50                  55                  60

Tyr Ala Ala Lys Val Glu Glu Leu Thr Lys Lys Glu Val
 65                  70                  75
```

<210> 165

<211> 330

<212> DNA

<213> Homo sapiens

<400> 165

```
acagaaggaa tgcctggaga gcagcaacag cccagctgcg gccaccatgt ccctgcaggc 60

tgattttgac atggtcacag aagatgtgag gaagctgaaa acaagaccag atgatgaaga 120

actgaaagaa ctttatgggc tttacaaaca agctgtaatt ggaaacatta atattgagtg 180

ttcagaaatg ctagaattaa aaggcaaggc caaatgggaa gcacagaacc cccaaaaagg 240

attgtcagag gaagatatga tgcgtgcctt tatttctaaa gccgaagagc tgatagaaaa 300
```

atatggaatt tagaataaag catatgataa 330

<210> 166

<211> 88

<212> PRT

<213> Homo sapiens

<400> 166

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Glu Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys
50 55 60

Gly Leu Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 167

<211> 88

<212> PRT

<213> Mus musculus

<400> 167

Met Ser Leu Gln Ala Asp Phe Asp Gln Ala Ala Gln Asp Val Arg Lys
1 5 10 15

Leu Lys Ser Arg Pro Glu Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Val Ile Gly Asp Ile Asn Ile Ala Cys Pro Ala Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Cys Glu Ala Trp Asn Leu Gln Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Cys Ala Tyr Ile Ser Lys Ala Arg
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 168

<211> 88

<212> PRT

<213> laughing frog

<400> 168

Met Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys
1 5 10 15

Leu Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys
50 55 60

Gly Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Leu
85

<210> 169

<211> 103

<212> PRT

<213> Anas platrhynchos

<400> 169

Met Phe Gln Ala His Leu Leu Arg Gly Thr Leu Thr Leu Ser Phe Phe
1 5 10 15

Leu His Gln Ala Asp Phe Asp Glu Ala Ala Glu Glu Val Lys Lys Leu
20 25 30

Lys Thr Arg Pro Thr Asp Glu Glu Leu Lys Glu Leu Tyr Gly Phe Tyr
35 40 45

Lys Gln Ala Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
50 55 60

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
65 70 75 80

Ile Ser Lys Glu Asp Ala Met Asn Ala Tyr Ile Ser Lys Ala Lys Thr
85 90 95

Met Val Glu Lys Tyr Gly Ile
100

<210> 170

<211> 87

<212> PRT

<213> Rana ridibunda

<400> 170

Ser Pro Gln Ala Asp Phe Asp Lys Ala Ala Gly Asp Val Lys Lys Leu
1 5 10 15

Lys Thr Lys Pro Thr Asp Asp Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ser Thr Val Gly Asp Ile Asn Ile Glu Cys Pro Gly Met Leu
35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Leu Lys Lys Gly
50 55 60

Leu Ser Lys Glu Asp Ala Met Ser Ala Tyr Val Ser Lys Ala His Glu
65 70 75 80

Leu Ile Glu Lys Tyr Gly Leu
85

<210> 171

<211> 86

<212> PRT

<213> Homo sapiens

<400> 171

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Arg His Leu Lys

```
  1               5                  10                  15

Thr Lys Pro Ser Asp Glu Glu Met Leu Phe Ile Tyr Gly His Tyr Lys
             20                  25                  30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
         35                  40                  45

Phe Thr Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
     50                  55                  60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
 65                  70                  75                  80

Lys Lys Lys Tyr Gly Ile
                 85
```

<210> 172

<211> 89

<212> PRT

<213> Homo sapiens

<400> 172

```
Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
  1               5                  10                  15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
             20                  25                  30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
         35                  40                  45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

     50                  55                  60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
 65                  70                  75                  80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
                 85
```

<210> 173

<211> 85

<212> PRT

<213> Homo sapiens

<400> 173

Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys
1 5 10 15

Thr Arg Pro Asp Asp Glu Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
20 25 30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Glu
35 40 45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Gln Asn Pro Gln Lys Gly Leu
50 55 60

Ser Glu Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu
65 70 75 80
Ile Glu Lys Tyr Gly
85

<210> 174

<211> 1049

<212> DNA

<213> Homo sapiens

<400> 174

taatgggcgc acaacatata aagatataat ttgtgacaat cacaacataa agtatgggca 60

gcgctgtata gagctataga gcagagattt ttgtatgcta tcaaagctaa atttggatca 120

atttaaacta ggttgttata aatttatgaa gttgattacc tctgtggtaa ccacttaaaa 180

ttttttaat tttaattttt atttattttt tgagacggag tctcactctg tctctaaaaa 240

aaggtcaaga aaattagaag ggtattaaat gatacactac aaaaaaaaat caatggaata 300

caaaagaagg cagtagtgga ggaaatgagg aacaaaaatg gtataagaca tacagaagga 360

atgcctggag agcagcaaca gcccagctgc ggccaccatg tccctgcagg ctgattttga 420

catggtcaca gaagatgtga ggaagctgaa aacaagacca gatgatggag aactgaaaga 480

actctatggg ctttacaaac aagctgtaat tggaaacatt aatattgagt gttcagaaat 540

gctagattta aaaggcaaag ccaaatggga agcatggaac ccccaaaaag gattgtcgac 600

ggaagatatg atgcgtgcct ttatttctaa agccgaagag ctgatagaaa aatatggaat 660

ttagaataaa gcatatgata aattttcctt tttgaagcct tcataatggt atcatgacca 720

aacatttaga gttaacgctg ttaactctag gtatcatgta tatttttgct attattatga 780

attatactta attagtagta tgctaaaact gcatagttaa ctaaattgta cttgcttaaa 840

ccaggtgtct ttaaaagttc ttttagaaaa gtatttttt tatttttata gatttagggg 900

gtacaagtgc agttttgttg catgaacgta tcatgtagtg gtgaagtctg ggctttcagt 960

gtccccatca cccagatagt ctacaattgt gcccaaaagg tacaattgta cattccttac 1020

accttctgtg accatgtcaa aatcagcct 1049

<210> 175

<211> 88

<212> PRT

<213> Homo sapiens

<400> 175

Met Ser Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys
1 5 10 15

Leu Lys Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu
20 25 30

Tyr Lys Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met
35 40 45

Leu Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys
50 55 60

Gly Leu Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu
65 70 75 80

Glu Leu Ile Glu Lys Tyr Gly Ile
85

<210> 176

<211> 89

<212> PRT

<213> Homo sapiens

<400> 176

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys

```
  1               5                  10                  15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
            20                  25                  30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
        35                  40                  45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

    50                  55                  60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
65                  70                  75                  80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
                85
```

<210> 177

<211> 85

<212> PRT

<213> Homo sapiens

<400> 177

```
Leu Gln Ala Asp Phe Asp Met Val Thr Glu Asp Val Arg Lys Leu Lys
  1               5                  10                  15

Thr Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
            20                  25                  30

Gln Ala Val Ile Gly Asn Ile Asn Ile Glu Cys Ser Glu Met Leu Asp
        35                  40                  45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Pro Gln Lys Gly Leu
    50                  55                  60

Ser Thr Glu Asp Met Met Arg Ala Phe Ile Ser Lys Ala Glu Glu Leu
65                  70                  75                  80

Ile Glu Lys Tyr Gly
                85
```

<210> 178

<211> 297

<212> DNA

<213> Homo sapiens

<400> 178

tcttccttaa ggctgatttt gacagggctg cagaagatgt gaggaagctg aaagcaagac 60

cagatgatgg agaactgaaa gaactctatg ggctttacaa acaagcaata gttggagaca 120

ttaatattgc gtgtccagga atgctagatt taaaaggcaa agccaaatgg gaagcatgga 180

acctcaaaaa agggttgtcg acggaagatg cgacgagtgc ctatatttct aaagcaaagg 240

agctgataga aaaatacgga atttagaata cagcatatga ggaatttttc cttttga 297

<210> 179

<211> 87

<212> PRT

<213> Homo sapiens

<400> 179

Phe Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu
1 5 10 15

Lys Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr
20 25 30

Lys Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu
35 40 45

Asp Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly
50 55 60

Leu Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu
65 70 75 80

Leu Ile Glu Lys Tyr Gly Ile
85

<210> 180

<211> 89

<212> PRT

<213> Homo sapiens

<400> 180

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro

```
         35                  40                  45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

     50                  55                  60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
 65                  70                  75                  80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
                 85
```

<210> 181

<211> 85

<212> PRT

<213> Homo sapiens

<400> 181

```
Leu Lys Ala Asp Phe Asp Arg Ala Ala Glu Asp Val Arg Lys Leu Lys
  1               5                  10                  15

Ala Arg Pro Asp Asp Gly Glu Leu Lys Glu Leu Tyr Gly Leu Tyr Lys
             20                  25                  30

Gln Ala Ile Val Gly Asp Ile Asn Ile Ala Cys Pro Gly Met Leu Asp
         35                  40                  45

Leu Lys Gly Lys Ala Lys Trp Glu Ala Trp Asn Leu Lys Lys Gly Leu
     50                  55                  60

Ser Thr Glu Asp Ala Thr Ser Ala Tyr Ile Ser Lys Ala Lys Glu Leu
 65                  70                  75                  80

Ile Glu Lys Tyr Gly
                 85
```

<210> 182

<211> 428

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(318)

<223> wherein n is a g or t

<400> 182

ttaatattgc tatattagtt ttgcaattga aaaattaagt tccaatagct tcctgctctg 60

taccttctca gtgggctccc aggaatcctt gcaacaactg ccagtatgtc tcaggcgttt 120

gagaaagctg ccaaggatat taagcacctt gagaccaagc cagcagatga tgagaggatg 180

ttcatctaca gccgctgcaa acaagcgact gtgcatgact taaatacaga atggcccagg 240

atgttagacc tcaaaggcaa ggcaaagcag gatgctggna atgagctgaa agacactgcc 300

aaggaagatg ctgtgaaagc tgatatcaac aaagtagaag agcgaaataa aaaatacaga 360

atataagaga ttggatttgg ttgccagcan tgcatttaac ctaaactgat acaatgcctt 420

tttttccc 428

<210> 183

<211> 86

<212> PRT

<213> Homo sapiens

<400> 183

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg Ile
85

<210> 184

<211> 87

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic

construct; chemically synthesized

<400> 184

```
Met Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu
  1               5                  10                  15

Lys Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr
             20                  25                  30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu
         35                  40                  45

Asp Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly
     50                  55                  60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu
 65                  70                  75                  80

Leu Lys Lys Lys Tyr Gly Ile
                 85
```

<210> 185

<211> 87

<212> PRT

<213> Sus scrofa

<400> 185

```
Met Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu
  1               5                  10                  15

Lys Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr
             20                  25                  30

Lys Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu
         35                  40                  45

Asp Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly
     50                  55                  60

Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu
 65                  70                  75                  80
```

Leu Lys Lys Lys Tyr Gly Ile
85

<210> 186

<211> 86

<212> PRT

<213> Canis familiaris

<400> 186

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Asp Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Met Leu Tyr Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Leu Leu Asp
35 40 45

Leu Arg Gly Lys Ala Lys Trp Asp Ala Trp Asn Gln Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Val Asn Lys Val Glu Asp Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 187

<211> 86

<212> PRT

<213> Bos taurus

<400> 187

Ser Gln Ala Glu Phe Asp Lys Ala Ala Glu Glu Val Lys His Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Glu Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Met Leu Asp
35 40 45

Phe Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Glu Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asp Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 188

<211> 86

<212> PRT

<213> Sus scrofa

<400> 188

Ser Gln Ala Glu Phe Glu Lys Ala Ala Glu Glu Val Lys Asn Leu Lys
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Met Leu Phe Ile Tyr Ser His Tyr Lys
20 25 30

Gln Ala Thr Val Gly Asp Ile Asn Thr Glu Arg Pro Gly Ile Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Trp Asp Ala Trp Asn Gly Leu Lys Gly Thr
50 55 60

Ser Lys Glu Asp Ala Met Lys Ala Tyr Ile Asn Lys Val Glu Glu Leu
65 70 75 80

Lys Lys Lys Tyr Gly Ile
85

<210> 189

<211> 89

<212> PRT

<213> Homo sapiens

<400> 189

Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
1 5 10 15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
20 25 30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
35 40 45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

50 55 60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys

65 70 75 80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
85

<210> 190

<211> 85

<212> PRT

<213> Homo sapiens

<400> 190

Met Ser Gln Ala Phe Glu Lys Ala Ala Lys Asp Ile Lys His Leu Glu
1 5 10 15

Thr Lys Pro Ala Asp Asp Glu Arg Met Phe Ile Tyr Ser Arg Cys Lys
20 25 30

Gln Ala Thr Val His Asp Leu Asn Thr Glu Trp Pro Arg Met Leu Asp
35 40 45

Leu Lys Gly Lys Ala Lys Gln Asp Ala Gly Asn Glu Leu Lys Asp Thr
50 55 60

Ala Lys Glu Asp Ala Val Lys Ala Asp Ile Asn Lys Val Glu Glu Arg
65 70 75 80

Asn Lys Lys Tyr Arg
85

<210> 191

<211> 1979

<212> DNA

<213> Homo sapiens

<400> 191

agtaggaagc cgcggggtgg tggcgagaga ggacccaggt gtcctagcag tgggcgccgc 60

ggggcacacg ctgggccaag gtgcaggcgg ccagggtggg agactgttcg ccccgccctg 120

agtactccta tcttgtttct ccacctgttc gggagttgga gatgtgcacc taaaggaggc 180

gcatctgggg acggacacat ctggcactga ggccctcgcc acctgcctcg ccacctggcg 240

accctgaccc caccacactg ccttgaggta ggaaaaggag gctcctcaac cacaacttct 300

gacctcccag ggtgtctgag gcctctaaag agcttagttt gcccctctgg gaagtgaatc 360

cttggcttat ggtgccgggg ggaccctgga ggccccctca cacgaaggct gcttcttgca 420

gagtcgctca aaagtagggc cccagggctc gcagcagcat gggcaccgag aaagaaagcc 480

cagagcccga ctgccagaaa cagttccagg ctgcagtgag cgtcatccag aacctgccca 540

agaacggttc ttaccgcccc tcctatgaag agatgctgcg attctacagt tactacaagc 600

aggccaccat ggggccctgc ctggtccccc ggcccgggtt ctgggacccc attggacgat 660

ataagtggga cgcctggaac agtctgggca agatgagcag ggaggaggcc atgtctgcct 720

acatcactga aatgaaactg gtggcacaga aggtgatcga cacagtgccc ctgggtgagg 780

tggcagagga catgtttggt tacttcgagc ccctgtacca ggtgatccct gacatgccga 840

ggcccccaga gaccttcctg agaagggtca caggttggaa agagcaggtt gtgaatggag 900

atgttggggc tgtttcagag cctccctgcc tccccaagga accggcaccc ccaagcccag 960

agtcccattc acccagggac ctggactccg aggttttctg tgattccctg gagcagctgg 1020

agcctgagct ggtttggaca gagcagcggg cagcatctgg aggaaagcgt gatcccagga 1080

acagccccgt gccccccaca aagaaagagg ggttgcgggg cagcccgccg gggccccagg 1140

agttggacgt gtggctgctg gggacagttc gagcactaca ggagagcatg caggaggtgc 1200

aggcgagggt gcagagcctg gagagcatgc cccggccccc tgagcagagg ccgcagccca 1260

ggcccagtgc tcggccatgg ccccttgggc tcccggggcc cgcgctgctc ttcttcctcc 1320

tgtggccctt cgtcgtccag tggctcttcc gaatgtttcg gacccaaaag aggtgactgt 1380

cagtggaggg gtctctgcag ccaactgaga ctatcttgct gtgccctgag ccttcctagg 1440

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cttccttccc tccccgcaac caccccaggc tcccctggga ggctgcagtt gtggtacacg 1620

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tccccagtct ctgggtcacc cgaattttcc caccctgct tctccccgag gaggttgagc 1740

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gagggaggcc aggaggcccg gaccagttgg gaggagtgag caggccccgg gggaggggga 1860

tgagcgcagt ttgctcgctt tcctcccctg ccggcccccc ccgcccccac acacactcgg 1920

gacgtcttca ttgaagattc acttacaaag gaatgtttca ctaaataaaa gaaaaccag 1979

<210> 192

<211> 305

<212> PRT

<213> Homo sapiens

<400> 192

```
Met Gly Thr Glu Lys Glu Ser Pro Glu Pro Asp Cys Gln Lys Gln Phe
  1               5                  10                  15

Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro Lys Asn Gly Ser Tyr
             20                  25                  30

Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr Ser Tyr Tyr Lys Gln
         35                  40                  45

Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp Pro
     50                  55                  60

Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser Leu Gly Lys Met Ser
 65                  70                  75                  80

Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu Met Lys Leu Val Ala
                 85                  90                  95

Gln Lys Val Ile Asp Thr Val Pro Leu Gly Glu Val Ala Glu Asp Met
            100                 105                 110

Phe Gly Tyr Phe Glu Pro Leu Tyr Gln Val Ile Pro Asp Met Pro Arg
        115                 120                 125

Pro Pro Glu Thr Phe Leu Arg Arg Val Thr Gly Trp Lys Glu Gln Val
    130                 135                 140

Val Asn Gly Asp Val Gly Ala Val Ser Glu Pro Pro Cys Leu Pro Lys
145                 150                 155                 160

Glu Pro Ala Pro Pro Ser Pro Glu Ser His Ser Pro Arg Asp Leu Asp
                165                 170                 175

Ser Glu Val Phe Cys Asp Ser Leu Glu Gln Leu Glu Pro Glu Leu Val
            180                 185                 190

Trp Thr Glu Gln Arg Ala Ala Ser Gly Gly Lys Arg Asp Pro Arg Asn
        195                 200                 205

Ser Pro Val Pro Pro Thr Lys Lys Glu Gly Leu Arg Gly Ser Pro Pro
    210                 215                 220

Gly Pro Gln Glu Leu Asp Val Trp Leu Leu Gly Thr Val Arg Ala Leu
225                 230                 235                 240
```

```
Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser
                245                 250                 255

Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg
            260                 265                 270

Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu
        275                 280                 285

Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys
    290                 295                 300

Arg
305
```

<210> 193

<211> 305

<212> PRT

<213> Homo sapiens

<400> 193

```
Met Gly Thr Glu Lys Glu Ser Pro Glu Pro Asp Cys Gln Lys Gln Phe
  1               5                  10                  15

Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro Lys Asn Gly Ser Tyr
             20                  25                  30

Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr Ser Tyr Tyr Lys Gln
         35                  40                  45

Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp Pro
     50                  55                  60

Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser Leu Gly Lys Met Ser
 65                  70                  75                  80

Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu Met Lys Leu Val Ala
                 85                  90                  95

Gln Lys Val Ile Asp Thr Val Pro Leu Gly Glu Val Ala Glu Asp Met
            100                 105                 110

Phe Gly Tyr Phe Glu Pro Leu Tyr Gln Val Ile Pro Asp Met Pro Arg
        115                 120                 125

Pro Pro Glu Thr Phe Leu Arg Arg Val Thr Gly Trp Lys Glu Gln Val
    130                 135                 140

Val Asn Gly Asp Val Gly Ala Val Ser Glu Pro Pro Cys Leu Pro Lys
```

145 150 155 160

Glu Pro Ala Pro Pro Ser Pro Glu Ser His Ser Pro Arg Asp Leu Asp
165 170 175

Ser Glu Val Phe Cys Asp Ser Leu Glu Gln Leu Glu Pro Glu Leu Val
180 185 190

Trp Thr Glu Gln Arg Ala Ala Ser Gly Gly Lys Arg Asp Pro Arg Asn
195 200 205

Ser Pro Val Pro Pro Thr Lys Lys Glu Gly Leu Arg Gly Ser Pro Pro
210 215 220

Gly Pro Gln Glu Leu Asp Val Trp Leu Leu Gly Thr Val Arg Ala Leu
225 230 235 240

Gln Glu Ser Met Gln Glu Val Gln Ala Arg Val Gln Ser Leu Glu Ser
245 250 255

Met Pro Arg Pro Pro Glu Gln Arg Pro Gln Pro Arg Pro Ser Ala Arg
260 265 270

Pro Trp Pro Leu Gly Leu Pro Gly Pro Ala Leu Leu Phe Phe Leu Leu
275 280 285

Trp Pro Phe Val Val Gln Trp Leu Phe Arg Met Phe Arg Thr Gln Lys
290 295 300

Arg
305

<210> 194

<211> 533

<212> PRT

<213> Bos taurus

<400> 194

Met Phe Gln Phe His Ala Gly Ser Trp Glu Ser Trp Cys Cys Cys Cys
1 5 10 15

Cys Leu Ile Pro Gly Asp Arg Pro Trp Asp Arg Gly Arg Arg Trp Arg
20 25 30

Leu Glu Met Arg His Thr Arg Ser Val His Glu Thr Arg Phe Glu Ala
35 40 45

Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn Gly Ser Phe Gln Pro
50 55 60

Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe Tyr Lys Gln Ala Thr

```
 65                  70                  75                  80

Glu Gly Pro Cys Lys Leu Ser Lys Pro Gly Phe Trp Asp Pro Val Gly
                 85                  90                  95

Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly Asp Met Thr Lys Glu
            100                 105                 110

Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys Lys Ile Leu Glu Thr
        115                 120                 125

Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu His Val Ile Gly Pro
    130                 135                 140

Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly Arg Ser Ser Asp Leu
145                 150                 155                 160

Thr Ser Val Arg Leu Glu Lys Ile Ser Lys Cys Leu Glu Asp Leu Gly
                165                 170                 175

Asn Val Leu Ala Ser Thr Pro Asn Ala Lys Thr Val Asn Gly Lys Ala
            180                 185                 190

Glu Ser Ser Asp Ser Gly Ala Glu Ser Glu Glu Glu Ala Ala Gln Glu
        195                 200                 205

Asp Pro Lys Arg Pro Glu Pro Arg Asp Ser Asp Lys Lys Met Met Lys
    210                 215                 220

Lys Ser Ala Asp His Lys Asn Leu Glu Ile Ile Val Thr Asn Gly Tyr
225                 230                 235                 240

Asp Lys Asp Ser Phe Val Gln Gly Val Gln Asn Ser Ile His Thr Ser
                245                 250                 255

Pro Ser Leu Asn Gly Arg Cys Thr Glu Glu Val Lys Ser Val Asp Glu
            260                 265                 270

Asn Leu Glu Gln Thr Gly Lys Thr Val Val Phe Val His Gln Asp Val
        275                 280                 285

Asn Ser Asp His Val Glu Asp Ile Ser Gly Ile Gln His Leu Thr Ser
    290                 295                 300

Asp Ser Asp Ser Glu Val Tyr Cys Asp Ser Met Glu Gln Phe Gly Gln
305                 310                 315                 320

Glu Glu Ser Leu Asp Gly Phe Ile Ser Asn Asn Gly Pro Phe Ser Tyr
                325                 330                 335

Tyr Leu Gly Gly Asn Pro Ser Gln Pro Leu Glu Ser Ser Gly Phe Pro
            340                 345                 350

Glu Ala Val Gln Gly Leu Pro Gly Asn Gly Ser Pro Glu Asp Met Gln
        355                 360                 365

Gly Ala Val Val Glu Gly Lys Gly Glu Val Lys Arg Gly Gly Glu Asp
```

370 375 380

Gly Gly Ser Asn Ser Gly Ala Pro His Arg Glu Lys Arg Ala Gly Glu
385 390 395 400

Ser Glu Glu Phe Ser Asn Ile Arg Arg Gly Arg Gly His Arg Met Gln
405 410 415

His Leu Ser Glu Gly Ser Lys Gly Arg Gln Val Gly Ser Gly Gly Asp
420 425 430

Gly Glu Arg Trp Gly Ser Asp Arg Gly Ser Arg Gly Ser Leu Asn Glu
435 440 445

Gln Ile Ala Leu Val Leu Met Arg Leu Gln Glu Asp Met Gln Asn Val
450 455 460

Leu Gln Arg Leu His Lys Leu Glu Met Leu Ala Ala Ser Gln Ala Lys
465 470 475 480

Ser Ser Ala Leu Gln Thr Ser Asn Gln Pro Thr Ser Pro Arg Pro Ser
485 490 495

Trp Trp Pro Phe Glu Met Ser Pro Gly Ala Leu Thr Phe Ala Ile Ile
500 505 510

Trp Pro Phe Ile Ala Gln Trp Leu Val His Leu Tyr Tyr Gln Arg Arg
515 520 525

Arg Arg Lys Leu Asn
530

<210> 195

<211> 195

<212> PRT

<213> Homo sapiens

<400> 195

Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser
1 5 10 15

Met Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys
20 25 30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn
35 40 45

Met Pro Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp
50 55 60

```
Ala Trp Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn
 65                  70                  75                  80

Tyr Val Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser
                 85                  90                  95

Gln Val Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu
            100                 105                 110

Val Val Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro
        115                 120                 125

Lys Lys Lys Asn Ala Ile His Thr Glu Met Tyr His Glu Ile Met Arg
    130                 135                 140

Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr
145                 150                 155                 160

Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr
                165                 170                 175

Asp Ile Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val
            180                 185                 190

Leu Leu Arg
        195
```

<210> 196

<211> 89

<212> PRT

<213> Homo sapiens

<400> 196

```
Leu Gln Glu Asp Phe Glu Ala Ala Ala Glu Lys Val Lys Lys Leu Lys
  1               5                  10                  15

Lys Asn Gly Pro Val Lys Pro Ser Asn Glu Glu Lys Leu Lys Leu Tyr
             20                  25                  30

Ser Leu Tyr Lys Gln Ala Thr Val Gly Asp Val Asn Thr Glu Arg Pro
         35                  40                  45

Gly Met Phe Asp Leu Lys Gly Arg Ala Lys Trp Asp Ala Trp Asn Glu

     50                  55                  60
Leu Lys Gly Met Ser Lys Glu Glu Ala Met Lys Ala Tyr Ile Ala Lys
 65                  70                  75                  80

Val Glu Glu Leu Ile Ala Lys Tyr Ala
                 85
```

<210> 197

<211> 88

<212> PRT

<213> Homo sapiens

<400> 197

```
Cys Gln Lys Gln Phe Gln Ala Ala Val Ser Val Ile Gln Asn Leu Pro
  1               5                  10                  15

Lys Asn Gly Ser Tyr Arg Pro Ser Tyr Glu Glu Met Leu Arg Phe Tyr
             20                  25                  30

Ser Tyr Tyr Lys Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro
         35                  40                  45

Gly Phe Trp Asp Pro Ile Gly Arg Tyr Lys Trp Asp Ala Trp Asn Ser
     50                  55                  60

Leu Gly Lys Met Ser Arg Glu Glu Ala Met Ser Ala Tyr Ile Thr Glu
 65                  70                  75                  80

Met Lys Leu Val Ala Gln Lys Val
                 85
```

<210> 198

<211> 20

<212> PRT

<213> Homo sapiens

<400> 198

```
Gln Ala Thr Met Gly Pro Cys Leu Val Pro Arg Pro Gly Phe Trp Asp
  1               5                  10                  15

Pro Ile Gly Arg
             20
```

<210> 199

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 199

ataagacata cagaaggaat gcctgga 27

<210> 200

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 200

tataagacat acagaaggaa tgcctgg 27

<210> 201

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 201

ggtggtaaat gctccttttg tttgttt 27

<210> 202

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic construct; chemically synthesized

<400> 202

acatcaagtt aacagtatgc ctctccc 27